

Application No. 09/760,964  
Amendment dated August 18, 2006  
Reply to Final Office Action of June 23, 2006

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**REMARKS**

Applicant has carefully reviewed and considered the Final Office Action mailed on June 23, 2006, and the references cited therewith.

Claims 1-2, 8, 10, and 19 are amended, claim 6 was previously cancelled, no claims are added; as a result, claims 1-5 and 7-20 are now pending in this application.

**§ 103 Rejection of the Claims**

**Claims 1-4, 8-9, and 19**

Claims 1-4, 8-9, and 19 were rejected under 35 USC § 103(a) as being unpatentable over Amano (U.S. Patent No. 6,100,996), in view of Hirst (U.S. Patent No. 5,655,174) and Takenaka (U.S. Patent No. 6,708,279). Applicant respectfully traverses the rejection as follows.

The rejection states in part that "the combination of Amano ('996) and Hirst ('174) does not teach specifically placing a sensor or including a second interface on the toner cartridge." However, the Examiner asserts that "Takenaka ('279) discloses a sensor within the toner cartridge (See Figure 1, Element 15) and a second communication interface (in order to transfer the data from the toner cartridge, See Col. 5, lines 25-28)." (Office Action, page 3, paragraphs 3-4). From Applicant's review of the Takenaka reference, there is no description, teaching, or suggestion in Column 5, lines 25-28 or Figure 1 of a toner cartridge comprised of a humidity sensor and a transmitter communication interface.

The Takenaka reference appears to describe an electronic apparatus and a method for controlling the supply of power to the apparatus (Column 1, lines 10-13). Specifically, Column 7, lines 25-28 of Takenaka states, in reference to Figure 1, "In other words, the temperature of the recording head 16 detected by the head temperature sensor 17 is entered to the I/O port 4 as an analog signal via the signal line 34, then converted to a digital signal there and fetched into the CPU 2." However, the Takenaka

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does not describe, teach, or suggest either a humidity sensor or a transmitter communication interface located on a toner cartridge.

In contrast, Applicant's independent claim 1, as amended, recites in part:

wherein the toner cartridge is comprised of a humidity sensor and a second transmitter communication interface

Also, Applicant's independent claim 19, as amended, recites in part:

a transmitter communication interface configured to transfer the humidity value from the humidity sensor to the printer system

Support for this claim language can be found in the text of the Applicant's specification as originally filed on page 4, lines 20-24, on page 5, lines 22-24, and as illustrated in Figure 1.

As such, Applicant respectfully submits that each and every element and limitation of independent claims 1 and 19 is not described, taught or suggested in the Amano, Hirst, or Takenaka references, either individually or in combination, and that claims 1 and 19 are in condition for allowance. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claims 1 and 19, as well as those claims that depend therefrom.

Additionally, Applicant submits that it would not have been obvious to combine the teachings of the Takenaka reference with the teachings of the Amano and Hirst references. Specifically, the Examiner states, "Amano ('996) does not teach a humidity sensor and a second communication interface included within a toner cartridge to control system operation." (Office Action, Page 2, Paragraph 4). The Examiner cites Hirst as describing a humidity sensor placed near the toner supply. (Office Action, Page 3, Paragraph 1). The Examiner cites Takenaka as disclosing "a sensor within the cartridge (See Figure 1, Element 15) and a second communication interface. . ." and states, "It would have been obvious to one of ordinary skill in the art at the time of the invention by applicant to place the sensor on the toner cartridge, such as the one taught by Takenaka ('279), and incorporate it into the monitoring system status of Amano ('996) and Hirst ('174). . ." (Office Action, Page 3, Paragraphs 4-5).

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Applicant respectfully disagrees. As mentioned above, the Takenaka reference appears to describe an electronic apparatus and a method for controlling the supply of power to the apparatus (Column 1, lines 10-13). The head cartridge of the apparatus of Takenaka includes a **head temperature sensor** to monitor the temperature of the recording head. (Column 7, lines 21-24). Upon Applicant's review of the Takenaka reference, the reference is directed toward temperature sensing and does not appear to describe humidity sensing or humidity sensors anywhere therein.

Therefore, it would not have been obvious to combine the head cartridge of Takenaka that includes a head temperature sensor with the monitoring system of Amano and the humidity sensing system of Hirst because there is not suggestion to combine the references in the absence of Applicant's specification. Moreover, there is no description, teaching, or suggestion in any of the cited references to place a **transmitter communication interface** on a toner cartridge much less in combination with a **humidity sensor**.

Applicant respectfully submits that a "signal line" is not analogous to a "transmitter communication interface" as recited in independent claims 1 and 19, as amended. As one of ordinary skill in the art will appreciate, a transmitter is a device which generates signals. In the Applicant's independent claims 1 and 19, this transmitter communication interface is recited as a separate element from the humidity sensor. The same is supported and reflected in Figure 1. Applicant's specification as originally filed recites on page 5, lines 22-24 that communication interface 112 can include a "low-power, short range transmitter".

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claims 1 and 19, as well as those claims that depend therefrom.

#### **Claims 5, 7, and 20**

Claims 5, 7 and 20 were rejected under 35 USC § 103(a) as being unpatentable over Amano et al (U.S. Patent No. 6,100,996), in view of Hirst (U.S. Patent No.

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5,655,174) and Takenaka (U.S. Patent No. 5,913,097) and further in view of Allen et al (U.S. Patent No. 6,268,094).

Claims 5 and 7 depend from independent claim 1 which, as amended, is now in condition for allowance for the reasons set forth above in view of Amano, Hirst, and Takenaka. Similarly, claim 20 depends from independent claim 19 which, as amended, is now in condition for allowance for the reasons set forth above in view of Amano, Hirst, and Takenaka. The Allen reference does not cure the deficiencies of Amano, Hirst, and Takenaka with respect to independent claims 1 and 19. That is, Allen does not describe, teach, or suggest, "the toner cartridge is comprised of a humidity sensor and a second transmitter communication interface," as provided in Applicant's independent claim 1, as amended. Also, Allen does not describe, teach, or suggest, "a transmitter communication interface configured to transfer the humidity value from the humidity sensor to the printer system," as provided in Applicant's independent claim 19, as amended.

As such, each and every element of independent claims 1 and 19 is not described, taught, or suggested in Amano, Hirst, Takenaka, and Allen either independently or in combination. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection with respect to claims 5 and 7 which depend from independent claim 1 and with respect to claim 20 which depends from independent claim 19.

#### **Claims 10-13, 15, and 17-18**

Claims 10-13, 15, and 17-18 were rejected under 35 USC § 103(a) as being unpatentable over Amano et al (U.S. Patent No. 6,100,996), in view of Hirst (U.S. Patent No. 5,655,174), Takenaka (U.S. Patent No. 5,913,097), and Maruta et al (U.S. Patent No. 5,237,369).

For the reasons stated above, neither Amano, Hirst, nor Takenaka, either independently or in combination, describes, teaches, or suggests a toner cartridge comprised of a humidity sensor and a transmitter communication interface. In

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contrast, Applicant's independent claim 10, as amended, recites in part, "wherein the toner cartridge is comprised of a **humidity sensor and a transmitter communication interface.**" Support for this claim language can be found in the text of the Applicant's specification as originally filed on page 4, lines 20-24, on page 5, lines 22-24, and as illustrated in Figure 1.

The Maruta reference does not cure the deficiencies of Amano, Hirst, and Takenaka with respect to independent claim 10. That is, Maruta does not describe, teach, or suggest "wherein the toner cartridge is comprised of a humidity sensor and a transmitter communication interface," as recited in Applicant's independent claim 10, as amended.

As such, each and every element of independent claim 10 is not described, taught, or suggested in Amano, Hirst, Takenaka, and Maruta either independently or in combination. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection with respect to independent claim 10, as well as those claims which depend therefrom.

Additionally, for the reasons mentioned above, Applicant submits that it would not have been obvious to combine the teachings of the Takenaka reference with the teachings of the Amano and Hirst references. The Takenaka reference appears to describe an electronic apparatus and a method for controlling the supply of power to the apparatus (Column 1, lines 10-13). The head cartridge of the apparatus of Takenaka includes a **head temperature sensor** to monitor the temperature of the recording head. (Column 7, lines 21-24). Upon Applicant's review of the Takenaka reference, the reference is directed toward temperature sensing and does not appear to describe humidity sensing or humidity sensors anywhere therein. Again Applicant submits there is no description, teaching, or suggestion in any of the cited references to place a **transmitter communication interface** on a toner cartridge, much less in combination with a **humidity sensor**.

Applicant once more submits that a "signal line" is not analogous to a "transmitter communication interface" as recited in independent claim 10, as amended.

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As one of ordinary skill in the art will appreciate, a transmitter is a device which generates signals. In the Applicant's independent claim 10, this transmitter communication interface is recited as a separate element from the humidity sensor. The same is supported and reflected in Figure 1. Applicant's specification as originally filed recites on page 5, lines 22-24 that communication interface 112 can include a "low-power, short range transmitter".

Therefore, it would not have been obvious to combine the head cartridge of Takenaka that includes a head temperature sensor with the monitoring system of Amano and the humidity sensing system of Hirst because there is not suggestion to combine the references in the absence of Applicant's specification.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claim 10, as well as those claims that depend therefrom.

#### **Claims 14 and 16**

Claims 14 and 16 were rejected under 35 USC § 103(a) as being unpatentable over Amano et al (U.S. Patent No. 6,100,996), in view of Hirst (U.S. Patent No. 5,655,174), Takenaka (U.S. Patent No. 5,913,097), and Maruta et al (U.S. Patent No. 5,237,369), and further in view of Allen et al (U.S. Patent No. 6,268,094).

Claims 14 and 16 depend from independent claim 10 which, as amended, is now in condition for allowance for the reasons set forth above in view of Amano, Hirst, and Takenaka. The Allen reference does not cure the deficiencies of Amano, Hirst, and Takenaka with respect to independent claim 10. That is, Allen does not describe, teach, or suggest, "wherein the toner cartridge is comprised of a humidity sensor and a transmitter communication interface," as provided in Applicant's independent claim 10, as amended.

As such, each and every element of independent claim 10 is not described, taught, or suggested in Amano, Hirst, Takenaka, and Allen either independently or in combination. Accordingly, Applicant respectfully requests reconsideration and

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withdrawal of the § 103 rejection with respect to claims 14 and 16 which depend from independent claim 10.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney Gregg W. Wisdom at (360) 212-8052.

At any time during the pendency of this application, please charge any additional fees or credit overpayment to the Deposit Account No. 08-2025.

CERTIFICATE UNDER 37 C.F.R. §1.8: The undersigned hereby certifies that this correspondence is being transmitted to the United States Patent Office facsimile number (571) 273-8300 on

8/18/2006

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